

Appl. No. 09/904,084
Response Dated April 27, 2004
Reply to Office action of March 15, 2004

REMARKS

Applicants' counsel thanks Examiner Marcantoni for his continued careful and thorough examination of the present application, and also for the very courteous and productive telephone interview conducted April 26, 2004. During that interview, all of the following points were discussed.

In the last Office action, the Examiner withdrew all the art based rejections; only rejections under 35 USC § 112, first and second paragraphs, remain.

The Examiner has made two rejections broadly applied to claims 1-33, one based on the second paragraph of Section 112 for indefiniteness, and the other based on the first paragraph of Section 112 for lack of support for the invention now claimed.

The first rejection under Section 112, second paragraph, is based on the ground the claims do not distinguish the group A dopant group recited in the claims from the groups recited respectively for the base oxide, primary stabilizer and group B dopant. In the last Amendment (filed by facsimile on February 4, 2004), Applicants inserted the following language into the independent claims 1 and 8 to make the requisite distinction:

said group A dopant being selected from the group consisting of rare earth oxides, alkaline earth metal oxides, transition metal oxides and combinations thereof, but excluding those species contained in said base oxide, group B dopant and primary stabilizer groups.¹

It is believed the underlined portion of the above-quoted language overcomes the Section 112, second paragraph rejection, by clearly delineating the scope of the

¹Independent claims 16 and 32 contain analogous language, though it is somewhat different based on the context of those claims.

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species from which the group A dopants may be selected, vis-a-vis the other components recited in the claims. However, it is also this underlined language which the Examiner has rejected under Section 112, first paragraph, as constituting new matter for lack of support in the application as filed.

Respectfully, this rejection is traversed. The effect of the rejected negative limitations now found in the independent claims is to exclude from the group A dopants those species contained in the other component groups of these claims. As pointed out during the telephone interview, basis for such an exclusionary limitation is found in the specification as filed at page 5, lines 3-5 and 12-14, where it states:

The radii of cations of the group A dopant oxide preferably are smaller than the radii of the cations of the primary stabilizer and/or the base oxide.

The radii of cations of the group B dopant oxide preferably are larger than the radii of the cations of the primary stabilizer and/or the base oxide.

From this language, it is inherently and necessarily disclosed that in this embodiment the group A dopant species are not the same as (i.e. exclude) species of the primary stabilizer and the base oxide groups. Stated simply, if the cationic radii of the group A dopant are smaller than the cationic radii of the primary stabilizer and the base oxide, then clearly the group A dopant is not the same species as (i.e. excludes) the base oxide or the primary stabilizer.

Furthermore, if the cationic radii of the group B dopant oxide are larger than the cationic radii of the base oxide and the primary stabilizer, then inherently it follows the group B dopant must be a different species than (i.e. excluded from) the species for the group A dopant. This is true because if the group A and B dopants

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are to have respectively smaller and larger cationic radii than the base oxide and primary stabilizer species, then the group B dopant cationic radius must be larger than the group A dopant cationic radius and thus they are not the same species.

Therefore, the claim language that the group A dopant is selected from a group of species "excluding those species" contained in the other recited component groups explicitly delineates the group A dopant vis-a-vis the other components in the claims as is implicitly disclosed in the specification as explained above.

The above-noted basis for the negative limitations in claims 1, 8, 16 and 32 should have been pointed out in the last Amendment, and Applicant's undersigned counsel apologizes for failing to do so.

With respect to claim 16, it is noted the further specific exclusion of Er_2O_3 from the group A dopants is supported in the specification at page 4 line 17.

With respect to claim 32, that claim specifically recites the relative sizes of the group A and B cationic radii respectively vis-a-vis the primary stabilizer cationic radius, and is supported in the specification by the above-quoted language from page 5 lines 3-5 and 12-14.

In view of the foregoing, it is respectfully submitted that the rejections of these claims under 35 USC § 112, both first and second paragraphs, have been overcome, and that these claims are definite, and clearly supported in the specification.

In addition, claims 2, 9, 17, 24, 26, 27 and 28 all recite specific species for the group A dopant group, all of which have basis in the specification as filed at page 4 lines 10-16. It is respectfully submitted that each of these claims, being fully supported in the specification as filed, is drawn to independently allowable subject

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matter over and above the independent claim from which it depends. The last Office action did not address any of these claims specifically, and it is believed the Section 112 rejections in the Office action would not apply to any of these claims.

Accordingly, the rejections of independent claims 1, 8, 16 and 32 all are believed to be overcome, and these claims now are in condition for allowance. In addition, dependent claims 2, 9, 17, 24, 26, 27 and 28 all are respectfully submitted as being independently allowable.

Should the Examiner have any questions or concerns with respect to the instant submission, or for any other reason to advance the prosecution of this case, the Examiner is requested to please contact the undersigned attorney at the phone number provided below.

If there are any fees resulting from this communication, please charge the same to our Deposit Account No. 16-0820, our Order No. 33253US1.

Respectfully submitted,

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